

ABSTRACT OF THE DISCLOSURE

A single-photon generator includes an exciton generation part including therein a quantum dot, an excitation part for generating an exciton in the exciton generator part, a recombination control part for controlling recombination timing of the exciton in the exciton generation part, and an optical window provided in the exciton generation part so as to pass a single photon formed as a result of recombination of the exciton, wherein the recombination control part causes, in the exciton generation part, recombination of the excitons at longer intervals than a recombination lifetime of a exciton molecule.

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